

ABSTRACT

An inrush current at beginning of operation of a charge pump circuit is reduced to prevent adverse effect on other circuits in a system. Charge transfer MOS transistors are connected in series. One end of each coupling capacitor is connected to each connecting
5 point of the charge transfer MOS transistors. An output from each clock driver is applied on the other end of the respective coupling capacitor. Each clock driver includes a first clock driver and a second clock driver having higher driving capacity than the first clock driver. Each clock driver is controlled so that the first clock driver is put into operation at first and at the end of a predetermined elapsed time it is stopped and the second clock
10 driver is put into operation.